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Volume 36, Number 6

JUNE 1973

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A Peek in the Publisher's Poke

T IS WITH great pleasure that this issue welcomes back to the fold of contributors, Russ Leadabrand, whose literary offering have not appeared in *Desert Magazine* since 1957. Russ is a veteran Southern California newpaperman and since 1960 has been authoring guidebooks and travel books for Ward Ritchie Press. Most readers will be familiar with Russ through his popular *Exploring California Byways* series or his regular contributions to *Westways*, the official magazine of the Automobile Club of Southern California.

Russ has driven, explored and researched all of the state of California and has traveled extensively throughout the Pacific and Southwest states in describing and photographing these areas for his many travel books and articles. His column in

Desert will draw upon this tremendous background and will feature items of interest that you the reader will hopefully supply him. These items could involve the history of a certain place you have visited but could find no written history. Why not let Russ play Sherlock Holmes, as I have assured him that our readers will come up with some real puzzlers.

Let's all welcome Russ aboard and catch his column on page 34. Then put on your thinking cap and send us your riddles.

It is also a pleasure to report that a transplant of Desert Pupfish, one of California's endangered species, has apparently been successful. Taken from their native home in Death Valley, these tiny charges have adapted to their surroundings near Hoover Dam. Every precaution was taken to duplicate as nearly as possible the environment of their previous home, even to the point of constructing a rock shelf just a few inches below the water's



Russ Leadabrand

surface. Of the 27 pupfish involved in the initial transplant, 24 have survived and biologists have even sighted some young. Spawning is apparently continuing but it will take some time yet to determine the plans complete success. The little creatures were threatened with extinction by the lowering water table in their natural habitat. A special refugium has been built and all indications are that these are not poor fish—by a dam site.

William Ampth

EXPLORING CALIFORNIA BYWAYS I

From Kings Conyon to the Mexican Border

BY HUSS LEADARRAND



EXPLORING CALIFORNIA BYWAYS 11 · In and around Las Angeles

BY BUSS LEADABRAND



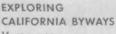
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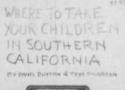
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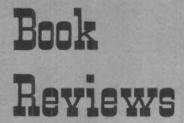
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ByStanley Paher



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TEMALPAKH

BY Lowell Iohn Bean Katherine Siva Saubel



Temalpakh, which means "from the earth," in Cahuilla, is the result of 10 years of field work and collaboration by the authors on the knowledge and usage of plants among the Cahuilla Indians. Covering more than 250 plants, it details the various usages these plants served in the life of the Indians. Illustrated sections include plants used for food, by season; plants used for medicine; plants used for rituals; plants used for manufacturing. i.e., baskets, sandals, hunting tools; and plants used for dwellings. The authors

hope that this work will stimulate a better understanding of environmental and cultural relationships which will be at least applicable to all other Southern California Indian groups.

Well illustrated, 225 pages, hardcover, \$10.00; paperback \$6.50.

OUTDOOR SURVIVAL SKILLS

By Larry Dean Olsen



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The burro has been the prospector's friend and companion. Carrying tools and supplies for their masters who roamed the West in search of hidden fortunes.

I F YOU EVER hear his song, you'll never forget it because it is one of the weirdest sounds made by any creature. It seems to embody bathos and derision and a forlorn appeal. It may evoke laughter in the listener, or a case of the shivers, depending upon where he hears it. Old prospectors gave to the animal that voices this sound the name of "desert canary." For many years they were the prime users of this lugubrious little beast of burden, until modern transportation appeared.

Once, in the Southwestern deserts, it was a common sight to see a grizzled old prospector trudging along with one or more of these animals, which we call burros. Their importance to the searchers for bonanza strikes was their sure-footedness on any terrain carrying heavy loads, the ability to go for long stretches without food or water. But mainly it was their

DES CAN



by Robert Hyatt

A young burro is caught by the camera's lens in a typical desert setting.

Desert Magazine

uncanny skill of finding water in arid country.

There was another item. Burros represented free transportation for anyone. Few were owned outright; they roam wild and free in all of the Western states, except Washington and Montana. They are found in greatest numbers in California, Arizona, Nevada and New Mexico. Fearing nothing, not even man, they are usually easy to capture. The rule seems to be, use a burro and turn it loose.

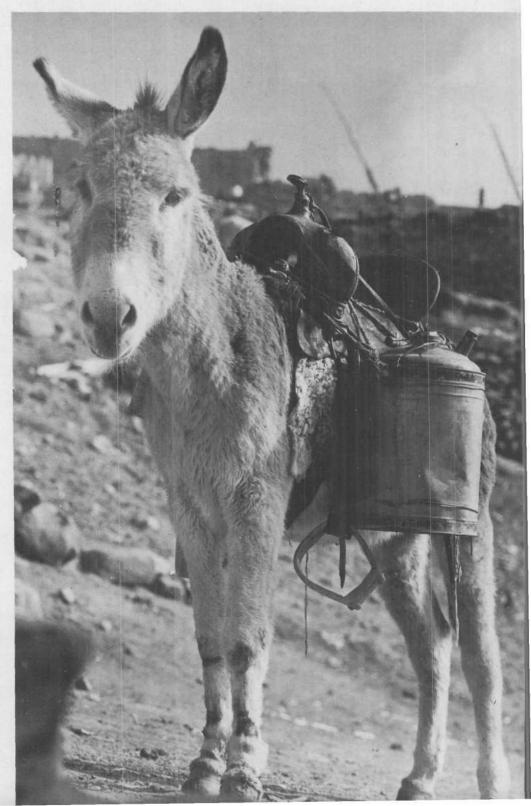
It is generally believed that this animal is a native of America, like the horse. This is not true. It is an import from northeastern Africa, a cousin of the wild asses. It was brought to Mexico by the Spaniards, and from there it migrated and was driven in laden burro trains to the U. S. It is said that the burro was first domesticated in Egypt as early as 3400 B. C.

ERTARY

The burro has been a multi-purpose animal. Oft-times he was saddled and provided transportation.
Others led a life of freighting material. Pictured is a burro used by the Hopi Indians to carry water and perhaps a Hopi now and then.

There are many legends regarding this ubiquitous little animal. One popular in Spanish-speaking countries is that Christ rode a burro to Jerusalem on Palm Sunday. Pointing up this supposition are those not uncommon specimens who "carry the Cross," the markings plainly visible on their shoulders. Mexicans hold a festival to the burro, when tiny woven straw burros with riders are sold in the market places.

Poets have eloquently sung praises about their faithfulness and how often they have led dying masters to water holes, fought off wild animals at night standing guard around campfires, and other amazing things. They don't mention the instances of men being savagely kicked and bitten by these unpredictable little beasts. Except for their known ability to find water, and their sure-footedness, there are no authentic records of the burro's other



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attributes.

Unquestionably, the burro has been of great value to mankind, and he has led a precarious life. He was hunted by Indian and white for his allegedly palatable meat. It has been open season on the burro, and thousands of his kind have been killed for pet food and slaughtered by thoughtless hunters for no reason at all.

Few animals can match the burro's qualifications for packing heavy loads through blazing deserts and over dangerous mountain trails. Mining companies as well as prospectors used them for hauling supplies and transporting raw ore to smelters. In the early days Mexicans drove countless burro trains back and forth over the border with merchandise they traded.

The burro is an enigma. He presents a docile and tractable front, but he is far from that. He is a very stubborn chap when the mood strikes him. While mincing along a trail, he has been known to stop suddenly and refuse to budge. Often he had good reason to halt. Such as when he sensed an imminent landslide, or knew he was approaching quicksand, or some other threat to life. In these cases his mas-

ter would brag about his "smart" burro.

Early western cavalry patrols sometimes used burros to "smell out" Indians. The burro is a daytime sleeper and usually drinks only at night. Therefore he stays awake while others sleep. When an Indian ventured near camp, he would give voice to his eerie cry, and the soldiers were alerted. Whether he smelled Indians or heard them with his incredibly keen ears is anybody's guess. But he warned the troops and for a time burro pictographs crept into Indian "medicine" making.

An adult burro stands about four feet at the shoulders and rarely weighs 400 pounds. It occurs in several colors—gray, brown, black or white, and combinations of these colors. Females bear a single colt. With the possible exception of the mountain lion, no predator will attack a burro. Seemingly slow and gentle, he is a savage fighter with hoofs and teeth. He is boss of the water hole and sometimes leaves dead sheep and calves, usually with their backs broken by his striking front feet

The burro has unparalleled sagacity. He



will never lead you over dangerous trails. You never hear of his being killed by highway traffic, although horse and cow casualties are fairly common. On the other hand, you never see trained burro acts, yet horse and pony feats are seen in many circuses. Why is this? The answer may be because the burro, like the mule, is too independent and stubborn to take trainer's commands.

One thing is certain: the burro is holding his own in a time when other species of wild animals are vanishing. This, in view of the fact that until 1957 no state had a law protecting the burro, he could be killed by anyone, at any time, throughout the west. In 1957, California passed a law imposing \$1000 fine and a year in jail for anyone caught killing a wild burro, unless it was damaging crops or domestic cattle-and then only when a killing permit was obtained from the Department of Agriculture. That year California also set up the first and only burro sanctuary, in Inyo County, which is part of Death Valley, where the largest burro concentrations are found.

Enactment of the "burro law" gave game department officials and hunters the jitters because, they pointed out, burros destroyed graze and water supplies used by desert bighorns and other game. This seems to be true. A 24-year study of the relationships of wild burros to the bighorn show that where there are many burros, there are no bighorns.

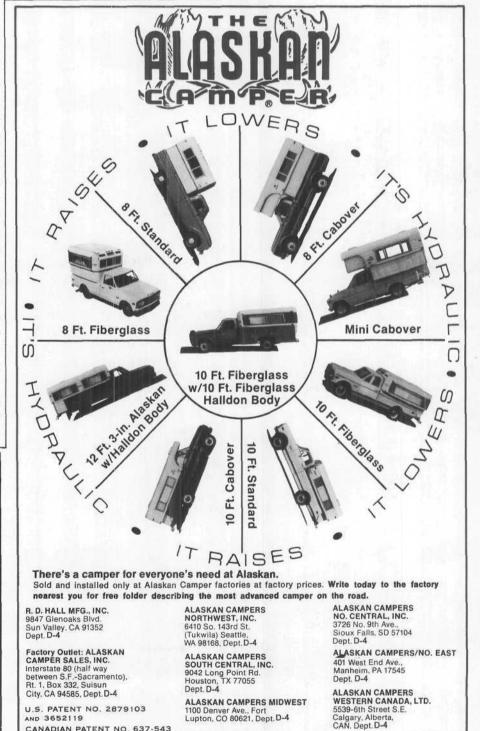
As of this date, no burro protection laws exist in any other state.

Presumably, some control measures over the self-reliant burro may have to be set up-even for the burro's own continued existence. Like sheep, these animals eat almost everything, often totally denuding large acres of vegetation. This works hardships on all creatures living

It appears then that the fate of the estimated 30,000 burros in the U.S. may hinge upon whatever importance he represents as against that of other species of game and domestic stock. Burro lovers and conservationists probably face a losing battle, and it may be only a matter of time until the funny little "desert canary" will be gone.

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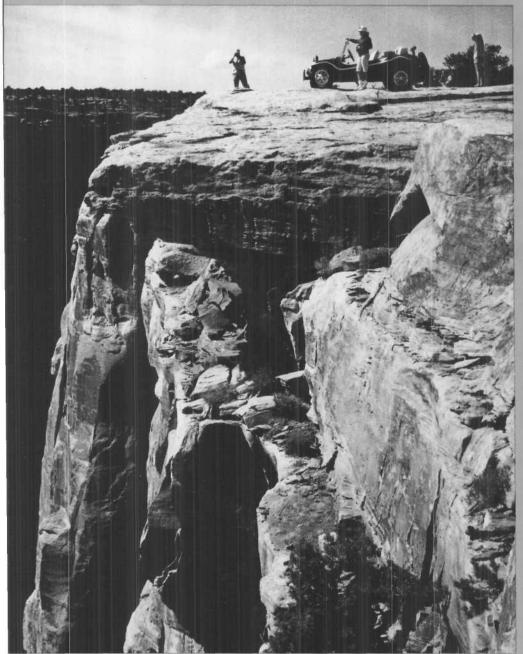
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"SLICKROCK" and "PETRIFIED DUNES"

by F. A. Barnes



"Petrified dunes" of Wingate Sandstone are generally found only near the edges of sheer cliffs. Elsewhere, the top of the Wingate is protected by the thin but hard layering of the Kayenta Formation. In this picture, taken at the head of Long Canyon, near Dead Horse Point State Park, California visitors Bill and "Mike" Tindle are shown such an exposure by a canyonlands resident.

A VAST GEOLOGIC entity called the Colorado Plateau sprawls across the southeastern half of Utah and into adjoining regions of Colorado, New Mexico and Arizona. Essentially, the Colorado Plateau is the drainage basin of the upper Colorado River and its tributaries.

Within this state-sized, oval-shaped region, the bones of old Mother Earth have been laid bare by erosion over countless eons of time. Here, rock strata exposed to the brilliant desert sun tell whole chapters in the geological story of this continent, and bear mute testimony to the unusual geologic history of one segment of the earth's crust that has gone its own separate way for megayears of time.

The full story of the Colorado Plateau is a long one, but parts of it should be of particular interest to those who travel through the Four Corners region, where the exposed "bare bones" are often quite different from those seen anywhere else in this country.

Many of these "bones" are upthrust sedimentary layers that to the casual observer resemble strata commonly seen elsewhere. But one type is unique—the rounded, rolling, massive, weathered sandstone "slickrock" that is found in many parts of Four Corners country. Some call this strange form of sandstone "petrified sand dunes."

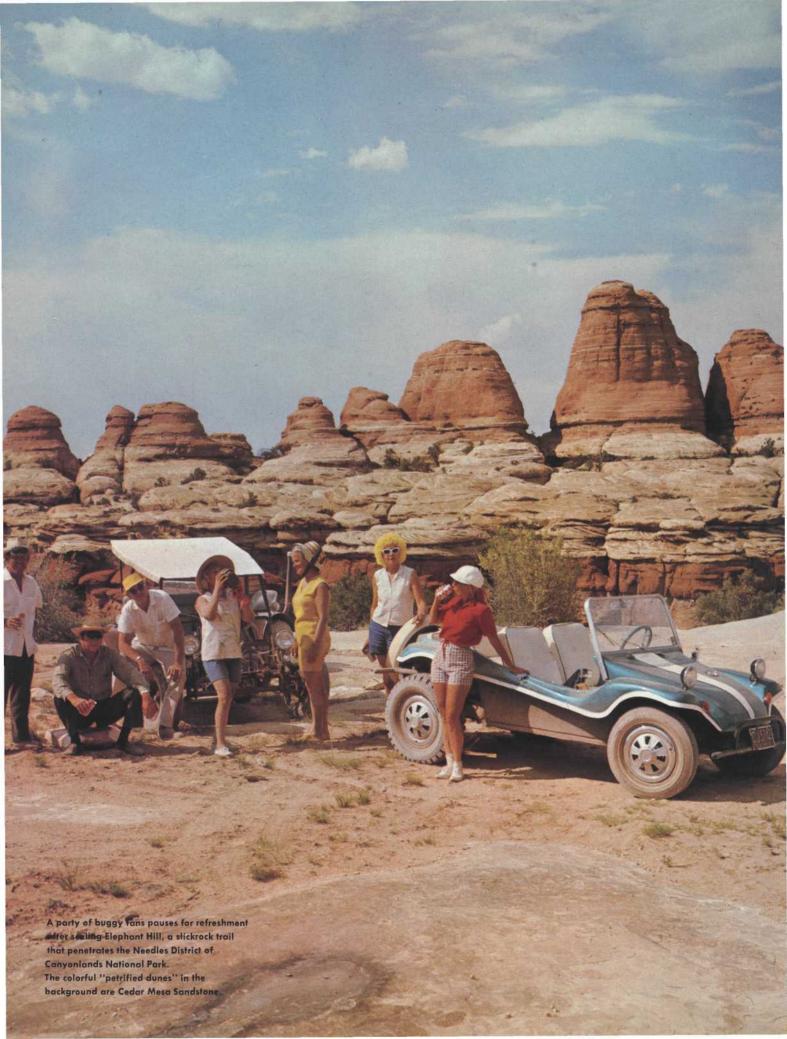
Why the terms "slickrock" and "petrified dunes?"

Well, each term has its own interesting background. In the case of "slickrock," it may be that the full story will never be known, but that which is known will help travelers understand and appreciate what they are seeing.

The term "slickrock" was probably coined by early pioneers who traveled through this and other western regions where large expanses of solid rock were exposed. Such rock, whether sandstone or the granite common in mountain ranges, is, indeed, "slick" to steel-shod wagonwheels and horses hooves.

In this modern era of rubber tires and rubberoid shoe soles, the term still bears its original meaning only to occasional horseback riders. Whether wet or dry, the slickrock of Four Corners country is not slick to off-road vehicles or hiking boots. To the contrary, the traction is so good on the sandpaper-like surface of most slickrock that both vehicles and hikers can

continued on page 30



A California Field Trip

"QUEEN'S LACE" TRAYERTINE

HERE IS some information on a travertine deposit which might be of interest to our readers," commented Desert's Editor, Bill Knyvett, when he gave me the assignment on the Aquarius Travertine Mine in California's Slate Range. The mine was reported to have a large deposit of "Queen's Lace Travertine" and collecting was allowed at a nominal fee. Knowing there were several deposits of good material in the general area, I contacted the mine's owner, Lloyd Howell of Trona, and arrangements were soon made for a trip to the Aquarius.

From Lloyd's description of the material, and the color photo he quickly sent me—''Queen's Lace'' appeared to be beautiful travertine.

The weather gods had been kind to the desert this year, bringing rain showers at regular intervals throughout the winter. A good wildflower season seemed assured. When we headed north on Highway 395 from our home in the San Gabriel Mountains, we began to see the results of winter storms—the desert was turning green. Near Atolia, grasses were two inches high and Red Mountain wore a velvet-green

cape. Our spirits soared as we envisioned the myniad fields of wildflowers that would be coming forth in the next two months.

A short stop at Trona refueled the fourwheeler and we hurried north to meet our host at the entrance to Homewood Canyon. Lloyd and his attractive teen-age daughter, Juanita, greeted us warmly and in a few minutes we seemed like old friends.

The mine lay four miles north at the point where the Slate butts against the Argus Range to effectively separate Panamint from Searles Valley. Just before the highway climbed a narrow summit in the Slates, we turned west onto a dirt road. A sign announced, "Aquarius Travertine Mine—1½ miles." In a few minutes we entered the mine property. The access road is good and passable for all cars and trailers.

A sizeable area in the bottom of the canyon has been designed as a campground with ample room for individuals or groups. "Chic-sales" are the only facilities provided. Lloyd plans to have a 300-gallon tank of water available for emergency use. Since there isn't a water source near the mine, it will have to be hauled from his home well.

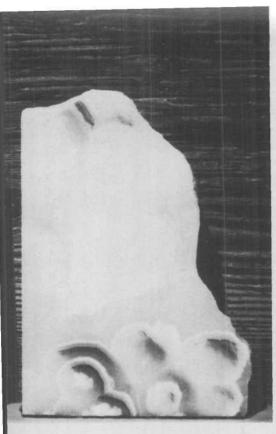
While we enjoyed the comfort of his little mine cabin, Lloyd told us about the deposit. A good-sized vein of travertine strikes across the ridge above the cabin.

by Mary Frances Strong

photos by Jerry Strong

Carefully selected rough material cuts into beautifully patterned slabs such as this.

Desert Magazine



Left: Typical vein material fashioned into book-ends. Right: Lloyd Howell and daughter, Juanita, display a slab of Queen's Lace travertine alongside the mine cabin. The mine is on the ridge in the background. Below: From the "diggings", the exhilarating panorama of southern Panamint Valley and the snow-mantled Panamint Range is an unexpected bonus.



Only a small section has been exposed and he feels there is a large reserve of material yet to be mined. We were shown several large, finished slabs and a pair of bookends. The name "Queen's Lace" seemed quite fitting.

Many of the patterns resembled designs in a four-inch lace-edging so often used on "Sunday" petticoats and pantaloons in days gone by. Colors range from a very light cream through varying shades of beige, honey, warm rust and brown — very strikingly distributed throughout the travertine. The quality was excellent with a very few vugs, even in the larger chunks.

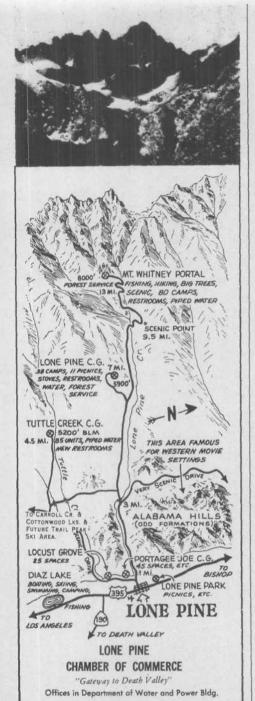
When Lloyd said the mine was on a ridge above the cabin, he forgot to mention you climb about a 20 percent slope to reach it! However, it was a very short hike. Slinging our camera equipment and rock sacks over our shoulders, we took deep breaths and started up. "Hey, don't you want to ride?" asked our host. "If you mean that little Jeep can make it, I'm more than willing to let it show its prowess," was my happy reply. Jerry, who had first said, "I'll hike up," took another look and decided he might as well let the Jeep do the work.

Actually, we really didn't think the grade was all that steep but, when Lloyd went into compound low, crawled over a hump and started the climb—I found myself in an astronaut's "take off" position—almost lying on my back and look-June, 1973

ing out the windshield at the sky. Jerry, hanging on to his cameras instead of the Jeep, nearly tumbled out the rear! It was a fun ride!

At the top of the ridge, which was barely one Jeep wide, we righted up. The "airplane view" that met our gaze was magnificent. Lying over a thousand feet below us was the elongated basin called Panamint Valley. Its floor was cut into intricate patterns by drainage washes from the encircling Argus and Panamint Ranges. Cars on the highway far below were mere moving specks resembling ants scurrying to and from their nests. Lloyd took us to a viewing post where he had





mounted high-powered binoculars. They brought the many points of interest into clear view and we could almost count the cars at the old ghost town of Ballarat, some nine miles across the valley.

Inspection of the diggings revealed a two-foot vein of travertine exposed in an open cut approximately 30-feet in length, 5-feet wide and 10-feet deep. Two young men were drilling and "feather-wedging" to remove a large chunk of material. We watched the operation with interest.

Bill Wright handled the heavy, gasoline-driven drill with apparent ease. Though the hardness of travertine is only three on Moh's scale, considerable time was required to drill the holes to a depth of 10 to 12 inches. Jose Aguirre guided the drill with his hands and I couldn't help but admire his courage, as well as the physical stamina of both young men.

Three evenly-spaced holes were drilled across the width of the vein. Two feathers (thin, semi-circular metal tools, tapered from top to bottom) were inserted into the holes. Between them was placed a tapered length of steel to make the unit fit snugly. A breaking force was carefully applied to the block by striking the steel wedged in the center of each hole lightly with a sledge. This must be done in succession to give a constant pressure, and great care must be exercised to avoid fracturing the travertine. When the wedges exert sufficient pressure, the block breaks off uniformly.

Aquarius, the eleventh sign of the Zodiac-meaning "water-bearer," is an appropriate name for a travertine deposit, since this material is precipitated from water. Calcium carbonate (limestone) is the substance commonly deposited by percolating and slowly flowing waters due to

its being the most soluble of the rockbearing minerals.

Several factors usually contribute to deposition-a change in water temperature, the escape of carbon dioxide due to the release of pressure, evaporation and the action of minute organisms. It is generally agreed that compact material, such as found in the Aquarius, is the result of very slow deposition from cool water.

Patterns in travertine are formed by trace compounds carried in the mineralladen solution. Resultant colors are dependent upon the particular compound present in solution at the time of precipitation. The colors found in Queen's Lace travertine can, doubtless, be attributed to iron-oxides present when precipitation

All mining at the Aquarius is done by Lloyd and his crew. This is to prevent unnecessary damage of the vein. Rough chunks of travertine are placed on the dump and "collecting is a matter of selecting."

Admission to the property is \$1.00 per person over 12 years of age, and includes the selection of 10 pounds of travertine. All material over the initial 10 pounds is 20¢ per pound. Camping is included in the admission fee along with wood for a campfire.

The mine is open on weekends and holidays from September 1st to July 1st of each year. Reservations should be made

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After the travertine has been taken from the mine, collectors select their material from this slope.

(formerly American Potash). During this long association with desert country, it seems only natural that he would become interested in rocks—particularly the local travertine. He has developed a "secret" quick-polish for use on large slabs which brings out their beauty with a minimum of effort. He also uses the more approved lapidary technique of grinding on a horizontal lap with 400 and 600

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Lolyd told us the Aquarius deposit was discovered by Oscar Walstrom of Argus in the early 1950s. The first claim was filed in 1955 by Frank N. Weidenbenner and Sterling Kendrick Jr. A year later, Dottie and Frenchy Brissaud, owners of the Searles Valley Rock Shop, purchased the claim. They sold the material in their shop at Argus and allowed group trips to the deposit. However, not too much material was removed.

Following Frenchy's untimely death, the claim lay idle and a good deal of vandalism occurred. Dottie and Lloyd discussed the future of the property and, in March 1972, Lloyd took it over.

Lloyd has been in the Trona area for 20 years and is chemical analyst with the Kerr-McGee Chemical Corporation

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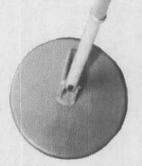
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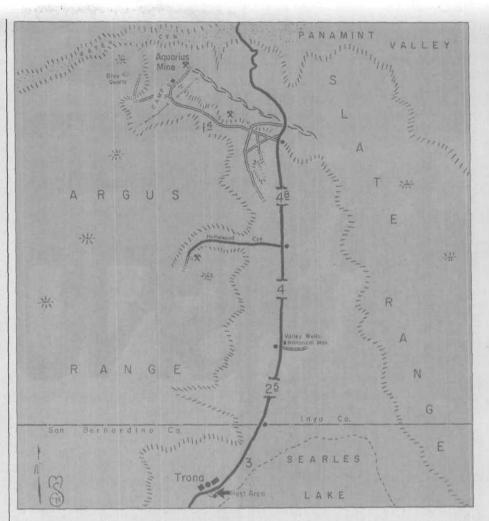
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grit, sanding with wet or dry cloth, then applying cerium oxide as the final polishing agent. He advises his customers to cut their travertine parallel to the banding to obtain the best pattern effect.

At the present time, Lloyd is making travertine lampshades. We didn't see the finished product but, judging from the color photos he showed us, they are beautiful. Perhaps he will have one on display at his cabin for subsequent collectors to see.

There is another interesting locale to visit during the trip to the Aquarius. It is a quartz prospect on a slope one-half mile west. It can readily be seen from the campground. This material, referred to as agate, is of an unusual, robin's-egg blue color. Some specimens contain black inclusions and striking cabochons may be cut from it. Lloyd will be glad to give further information and directions. Small specimens will be found at the dump shown on the map. There is no charge for collecting.

A large group of rockhounds arrived when we were unloading our treasures from the Jeep. They were a merry group of assorted ages—all members of the Yucaipa Valley Gem & Mineral Club. A crowd soon gathered around the polished specimens on display. The beauty of the material heightened their interest and everyone was eager to get up to the diggings.

As I watched this happy group of people head up the hill, I couldn't help but feel that rock collecting is a very special hobby. It brings the urban dweller into the clean, dry air of the desert and leads them to areas they would never see otherwise. Here they climb hills and hike trails instead of sitting thunched up in front of a TV set. Interest continues upon returning home when minerals are cleaned, cataloged and displayed—or cut and polished into jewelry and other assorted items.

Rock collecting trips are Nature's prescription for health, happiness and staying young at heart. Visits to deposits like the Aquarius make people aware of the earth around them and the gifts it has to offer. Man, with all his ingenuity, can never replace the mind-clearing, the soul-satisfying and the peaceful contentment which are provided every time we journey along Nature's trails.



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Not too long ago, the line at the General Delivery window in most post offices consisted mostly of businessmen, or itinerate laborers, who wandered about the country looking for big deals or new jobs.

But not any more. The lines have grown longer; not with sharply dressed businessmen, or laborers in khaki, but with casually-dressed retired folks who are finally realizing a life-long dream; they are traveling.

They follow the weather, always leaving as a forwarding address, the name of another town down the road where the weather is friendlier. One postal clerk told this writer: "Even if I didn't have a calendar and was unable to see what the weather was like, I'd still know when it started getting too cold up north, or too warm here. When it's too cold a way up there, the mail starts pouring in here. When it gets warmer up there and too hot here, the mail stops," she explained.

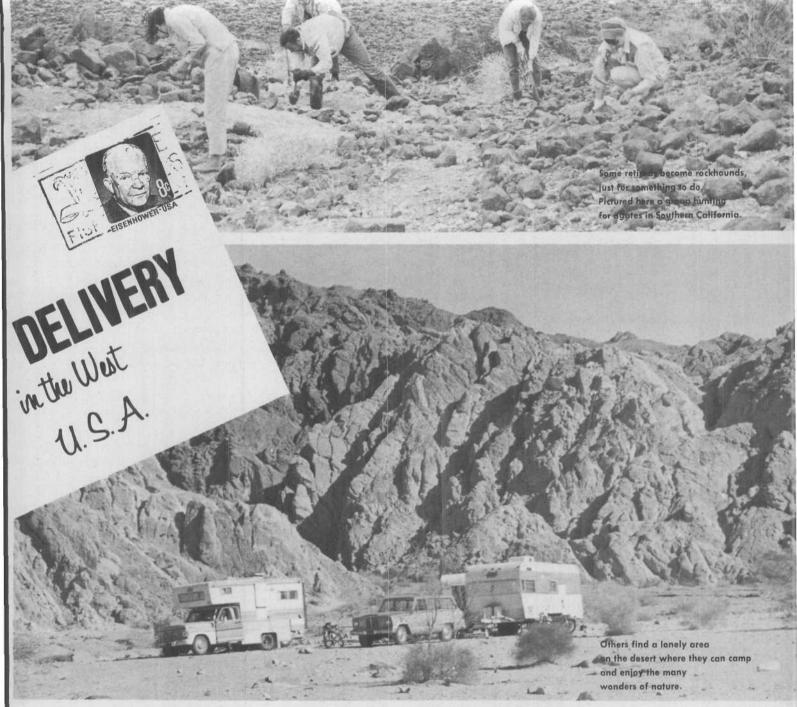
This was in Quartzsite, Arizona, where the year-around population is about 250. During the winter months, it jumps to more than 10,000. The difference are retired people, who follow the weather in homes on wheels.

Not too many years ago, the traveling retiree was something of an oddity; but today they are as common as mile markers alongside the highway — and becoming more common every time some state raises its property taxes.

At first, many of the wandering retirees were forced into a nomadic existence by tax collectors who cared not a whit about the meager limits of retirement income. In many cases, taxes continued to climb, while income simply did not.

Ward Chamberlain, formerly of New York, told this writer:

"It got harder and harder to make ends meet. Our taxes kept going up. The city continued to assess us for first one thing, then another. There just wasn't enough money. We finally had to sell our home.



It was the best thing that ever happened to us. We are now free."

He explained that with the money he had received for his house, he and his wife bought a 21-foot travel trailer, a new car and set out to see the world. They have now been on the road for more than five years and generally regret that they didn't start much sooner.

Chamberlain said that he and his wife, Carla, spend their winters in the south and their summers up north. During five years of traveling, they have visited nearly all of the Western states, Canada, and Mexico.

"We just follow the warm breezes," he likes to say.

The case of the Chamberlains' is not unusual. There are thousands of other retired folks just like them, spending their summers in northern campgrounds and trailer parks and enjoying the winters Southern Arizona, California, or Mexico.

Many of today's nomadic retirees, however, have not been forced into a life of traveling. They simply got out before taxes drove them to the brink of poverty.

This huge group of retirees forms part of one of the nation's most exclusive clubs. It's true that the club lacks formal organization; there are no dues and no regular meeting schedule, but these people have a knack for getting together, whether it be in the middle of the southwestern desert, or in the heart of a high mountain campground in the northwest. They are quick to spot a newcomer-and eager to do everything within their power to help the newcomer adjust to this new way of life.

"I thought it would be sort of tough on the Mrs.," Darrel Heart from Alabama said. "She was used to having all her lady friends around . . . you know, the morning coffee klatch and that sort of thing. I thought she'd really get lonely.

"But you know, we left Alabama in January, and by the end of February, we had more friends than we had ever had

continued



before in our lives.

"We first went to Yuma. We parked out in the middle of the desert where it didn't cost us anything. There were about 30 other trailers and campers in the same

"We hadn't even got our trailer unhitched before we knew most of the people around us. We were invited to play cards that night and the next morning four of us went fishing on the Colorado River. It was more like homecoming than anything else."

To most nomadic retirees, this new way of life can be summed up in two simple words: "We're free."

'I've never really known what a sense of freedom was like until after we started traveling," said Arthur Hallowell of San Francisco, California.

"You don't realize it, but you're a slave to something your whole life. If it's not the kids, it's your property, your job, or some other darn thing. But now, there's nothing. You are free, really free."

And when you analyze it, what could be freer than a feather blown by a wind, a warm wind.

Most beginners in this nomadic life appear to be concerned about finances. "And why shouldn't they be?" one woman said. "We spend most of our lives worrying about where the next dollar is coming from, or how we are going to pay this, that, or some other bill.

"This is really true after we retired. Every time we turned around somebody else wanted money for something. But not any more. All we need is enough money for food and enough gas to get a little farther down the road."

This, perhaps, is an over-simplification. But after interviewing numerous retired travelers, it's rather evident that money worries are not generally one of their problems.

To state definite requirements would be simple. Some retired travelers get by well on as little as \$250 per month. Others need twice that amount. It depends mostly on just how much traveling a couple does and what they do while traveling.

As a rule, a retired couple might leave Southern California, for example, in May. They'll go to Oregon and perhaps spend as much as a month at one of the National Forest Campgrounds. In July, they may wander on into Washington, Canada, Montana or elsewhere.

They'll return to the Southwest the same way; not by leaps, but by short hops designed to give them plenty of breathing time in between.

When you analyze this type of traveling, it's easy to see that not too much money is spent for gasoline, or automobile maintenance. The biggest expense is food and the little extras that everyone requires now and then.

Furthermore, there is a surprisingly large amount of land left in the Western United States where camping is free. Most often, this land is in, or near, large National Parks or other major sight-seeing, or tourist areas; places where people would want to go even if they were on an unlimited budget.

In the Southwest, in particular, campers or trailerites can park darn near anywhere. They can find themselves a friendly palo verde or mesquite tree and set up housekeeping for as long as they like.

And this is the way many retirees stretch their traveling dollar. If they run short of funds, they find an enjoyable spot, and stay for a couple of months

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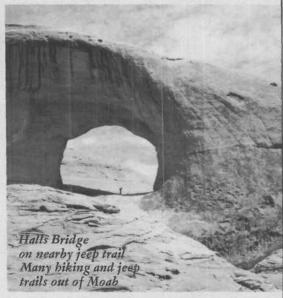
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while their income builds up. Then, they are off again.

One might think that constantly wandering over the west could get tiring after a couple of years; but surprisingly, it doesn't. Boredom generates from a constant repetition of the same thing. "Getting in a rut," is what it's sometimes called.

This rarely happens to nomadic retirees. They are numerous hobbies that go hand in hand with traveling. In fact, many of these hobbies have started people traveling.

Fishing is probably tops on the list. There are few traveling retirees who are not carrying along a few fishing rods and reels. They know western streams and rivers like many of us would like to.

"Man, you can't beat the Klamath for salmon . . ." a typical conversation around an evening campfire might go.

"Oh, I don't know," another man — or woman—might interrupt. "Have you tried the Rogue River lately?"

"Yeah," someone else might say. "But I only caught a 19 pounder there. You should see the one I yanked out of the

Columbia."

On another occasion, it might go something like this:

"You mean you've never fished the Madison?"

"No, I've never been to Montana."

"Well, shucks, why don't you and the Mrs. meet us up there this summer? You've never seen such great fishing."

Of course there are other great hobbies—such as rockhounding, gem collecting, photography, to mention only a few.

Surprisingly, most traveling retirees are devotees of several hobbies. A couple might go fishing this weekend, hunt rocks on Monday and Tuesday, photograph flowers, or scenery on Wednesday, collect rare gems on Thursday and rest on Friday.

Some folks use these hobbies to supplement their income. They become proficient rockhounds, gathering rare rocks or gems that are worth something to collectors. If the rocks and gems are of good quality, they bring a handsome price.

Fish, of course, is edible and helps to reduce the cost of food, which admittedly is more expensive when traveling. But, perhaps, the most enjoyable part of this type of retirement, according to nearly all of the persons interviewed, is the lasting friendships that are encountered all over the West and renewed with surprising regularity.

Sometimes a campground can take on an air of festive homecoming. Not too long ago, this writer was parked in a campground on the California coast. A trailer started backing into the space across the road and before the driver even got out of the car, another camper was at his side.

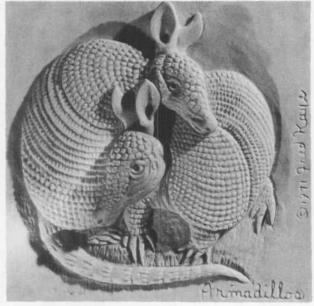
'You old sun-of-a-gun," he cried out to the driver. "We haven't seen you since last summer. Let's see, it was in Canada, wasn't it?"

The driver jumped out, forgetting about setting up his rig for the night.

"There's quite a few of the bunch here," the first camper said. "There's sure going to be a party tonight. I can see that now."

And there was. Not the noisy type that younger people are accustomed to, but a quiet, happy evening of getting reacquainted.

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Ancient Ghosts

by Mel Lewis

In South Central Idaho, there lies one of the most astonishing landscapes to be found in all the world. Here a vast lava field, very much like a glistening black matrix, blankets an area of more than two-hundred square miles. The entire field is studded and pocketed with yawning, open-throated cinder cones. There are great extinct volcanoes to shape and predominate the skyline, along with grotesquely figured, red-hued cinder crags, like ancient derelict ships which seem to float aimlessly upon some pre-historic black sea.

All of this is accentuated by solidified rivers and falls and cascades of shining black lava designed to tax the most vivid imagination.

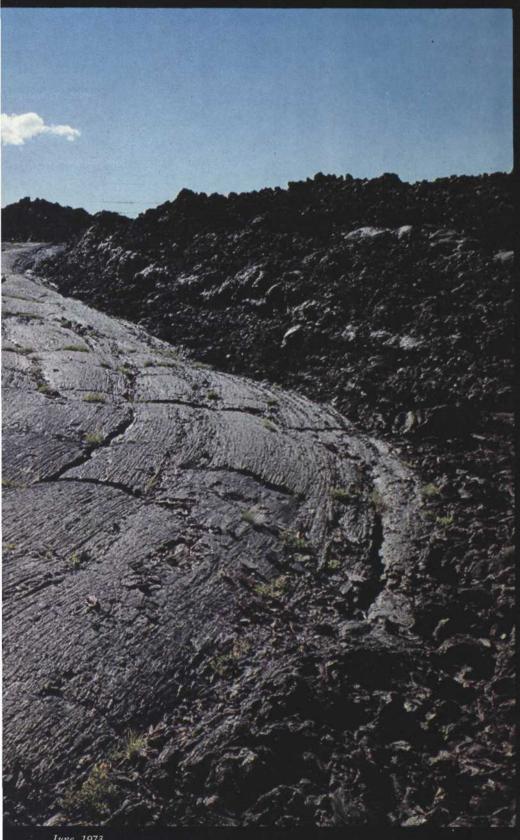
If one were unexpectedly transported into this area, his first impressions of the ancient cinder cones and laval flows might be that they had occurred only yesterday, and the entire landscape would be searing hot to the touch. Such impressions are not unusual to the first time visitor, nor are they strangers to veteran visitors. Some find themselves fearful that the next eruption might begin even as they stand there, and fretful that the last eruption may not as yet have subsided.

Whether veteran or first time visitor, the immediate and lasting impression is that this startling landscape is in the process of occurring now, at this very moment, that you are occupying a box-seat in the revelation of a genetic creation. To preserve such impressions, our National Park Service has set aside 83 square miles of the most indicative part of this choice corner of fantasia and dedicated it as Craters of the Moon National Monument.

Exactly when the cataclysmic occurrence took place which created this astonishing landscape, no man knows, but by forging a scientific key from the combined contributions of botany and geology, we can



The Malpais



Lava flow appears as a roadway in Craters of the Moon National Monument. Photo by Ed Cooper, Everett, Washington.

unlock some of the secrets that belong only to this select segment of creation. Through these keys of modern technology, some of the secrets of time that died with the patriarchal Limber Pines, the Ancient Ghosts of the Malpais, may be resurrected and give us a fair idea of what page of geological history was written here. For one thing they tell us that whenever this cataclysmic occurrence actually did take place, it thoroughly sterilized the earth of every living organism, and in its wake left only the barest of nutrients for the regeneration of only the fittest and most sturdy forms of plant life. The Limber Pines took up the uncompromising challenge and forged a record of longevity that severely tests the credibility of man's imagination.

Rainfall in this high desert region is sparse, and for what little there is the volcanic refuse offers no accommodations for collecting or holding precious, lifegiving moisture. But the Limber Pines that chose to sink their roots into this reluctant atmosphere have adapted well. These hardy, long-lived trees send out searching main roots for great distances through the parched cinders, and from the main roots, tiny hair roots explore and collect all the available moisture within reach. And so it is that these tough old patriarchs draw to them the sparse, hardearned nutrients of life that barely sustains them throughout all nature's adver-

Today, these spectators of pre-historic times stand as silent witnesses of the western world, witnesses to the first pages of primitive history. They stand as witnesses to the rumbling of vanished buffalo herds of vesterday and the terrible tragedies of the Indian Wars. They knew the boisterous influx of fabled outlaws and western cattle barons followed by the outlaw's demise, and cattle empires turned into quiet

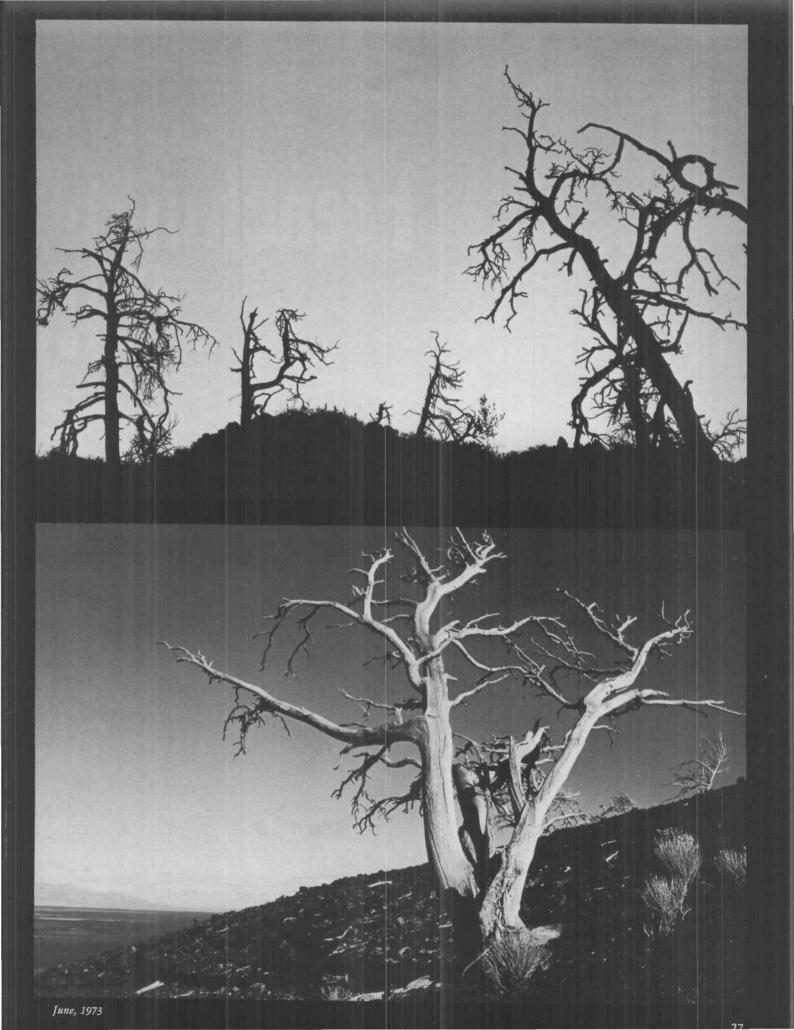


farmlands and bustling communities so necessary to the support of increasing population growths.

Within the span of our time they have seen the birth of the atomic age and these time-seasoned Limber Pines have witnessed the training of America's spacemen at their very feet, and perhaps, just perhaps, they have yet to witness pioneering visitors from somewhere in the vastness of outer space.

Up along the high black cinder ridges they stand, the Ancient Ghosts of the Malpais, their skeletal trunks and limbs bleached to a glaring white by the hot suns of a thousand summers, stripped of bark and greenery by the constant pelting of wind-driven sand. And yet, even in death they stand proud and magnificent and arrogant . . . even beautiful, in their tenacious rebellion against time. And what a pity it is that time will inevitably be the victor.

Left: The Triple Twist Tree. Scientists have counted 1350 annual growth rings to the rotted heart of this veteran Limber Pine. Because of the rotted heartwood, an estimated 150 growth rings are missing, therefore, Triple Twist Tree is about 1500 years old! This photo was taken about 20 years ago, when the old patriarch still had enough life to turn a few thinning needles to the sun. Unfortunately, it died in 1961, but in passing left geologists a solid clue as to the cessation of the lava flow in which it had sunk its roots. Allowing about 100 years for sufficient soil to form to permit growth of the seed, the last superheated lava flow probably occurred here during the Fourth Century, A.D. Right above: High upon a black cinder cone rim, these ancient Limber Pines stand silhouetted against fading evening skies, now only skeletal remnants of a former life. And yet, even in death, their grotesque shapes retain a beauty that might even surpass that of their life. Right below: With trunk and branches stripped to bleached nakedness by years of exposure to sun and wind and driving sand, this ancient Ghost of the Malpais stands white and stark and beautiful, and with nearly as much strength as when it lived. Photos by author.



by Jay Widener

TESTLED WITHIN the Sierra foothills. along the eastern rim of the great California central valley, approximately four miles south of Coarsegold, lies Ouartz Mountain, and the remnants of shattered dreams of golden wealth. Where once the thunder of gold stamps echoed, the stillness is now broken only by lowing cattle. And on the hillside, the silent machinery amidst rotted timbers and quartz tailings, the rusted rails disappearing into the darkened tunnel, and the crumbling bricks scattered through the underbrush, fashion a ghostly monument to the shortlived grandeur of the little remembered French mining community of Narbo.

It was back in 1883, according to legend, that a mine owner named DeFries, discontented with small returns for his back-breaking labors, loaded his shotgun with placer gold, and shot it into the mouth of his mine shaft. Having completed this 'salting,' DeFries sat back to patiently await a gullible tenderfoot. Whether or not the legend is true, the land on which DeFries mine was located was to work in his favor, for it was not only rich in strings and pockets, but was located within four miles of the established and booming mining camp of Coarse Gold Gulch (now Coarsegold).

Along came Marcellin Fache, a Frenchman seeking fame and fortune. Fache proved to be the foolish tenderfoot De-Fries was expecting, for after a hasty inspection, Fache enthusiastically purchased the mine and much of the surrounding land.

After acquiring this supposed bonanza, Fache took immediate steps for development by incorporating as The Quartz Mountain Mill Company. Through the agency of the churches, he secured investment money from France, and soon, the investors and their families arrived, and the town of Narbo was born.

The new camp created quite an impression upon the surrounding foothill community. Used to the comforts of the wealthy, the French continued their flamboyant mode of living in Narbo, reflected in the ornate furnishings, luxurious clothing, and imported wines shipped in at

Frenchman's Folly

Right: The mill stands forlornly on the Quartz Mountain hillside. Below: Left behind at the vacated mine, a windfall for an antique car buff! Below right: Was this the \$15,000 marine engine purchased to run the mill?

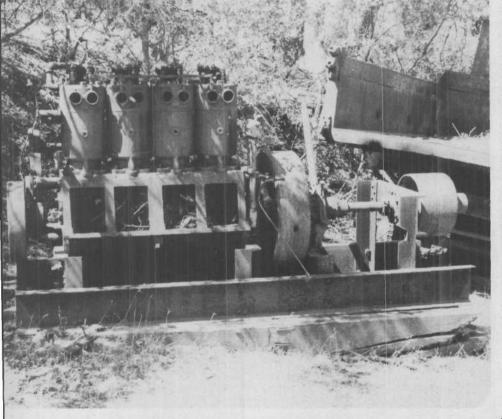


great expense. And although their cultured manners were foreign to the rough miners of the neighboring camps, many of them visited regularly to partake of the whiskey and gambling offered at the Narbo Hotel by the proprietor, and post-

master, J. H. Perry.

Extravagance was also apparent in their lavish construction. The Fresno Expositor of March 31, 1886, reported on the company President's house: "... This palatial residence, built at the cost of \$40,000,





stands on the top of the mountain, and below on all sides is one of the grandest views in these grand mountains . . ."

If the new community's way of life seemed extravagant, it was exceeded, however, by their mine operation. After liv-June, 1973 ing quarters had been established, a huge sixty stamp mill was purchased, transported, and installed at an excessive cost. Unfortunately, the mill was designed to be powered by water—and their area was singularly devoid of water!

Undaunted by their inexperience and lack of knowledge, they managed to compound their blunder. Without regard to water rights, they proceeded to dig, using mostly Chinese labor, a 25-mile ditch to the vicinity of Crane Valley (Bass Lake) to provide the needed water. Rock reservoirs were constructed west of the camp, huge quantities of lumber were purchased, and work began building flumes. A circular mill was also purchased near the present site of the Bass Lake Dam for cutting the necessary lumber for the flumes and other construction needs for the mine. The flumes were never completed, and the mill was abandoned after Henry Miller (of Miller and Lux) denied them the water through successful court litigation.

Without the needed water, the investors were forced to find another source of power for their mill. They purchased a marine engine for \$15,000, and their sixty stamps were finally put into operation.

The improvidence and lack of know-ledge that characterized the company's entire operation was graphically, and humorously, illustrated with the opening of the mill. The mill operator, having been instructed that one pound of quicksilver would be necessary to secure \$1000 of gold, forthwith dumped one-hundred pounds of the precious metal, with apparent intent of immediately trapping \$100,000 of gold. Naturally, most of the quicksilver ended up in the creek bed, to be later recovered by more astute miners.

With the opening of the mill, Fache's original error also became apparent. The untested mine produced a gold output so paltry that only ten out of sixty stamps were used. Despite repeated probes of the mountain-side, the elusive vein they sought did not materialize. By 1887, the grandiose days of Narbo had faded into oblivion, and Fache's dreams of golden wealth lay crushed in the worthless tailings of Quartz Mountain.

The remains of Narbo now stands on private property on the side of Quartz Mountain, its silence broken only by the lowing range cattle, and the sounds of busy traffic on State Highway 41, (to Yosemite). At the southern boundary of the "Safari World" exhibit, the visitor searching for Narbo will find Route 417. About a quarter-mile up this paved road, to his right, he will discover a "fire control road," that will lead him up Quartz Mountain to Fache's folly.

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SLICKROCK AND PETRIFIED DUNES

continued from page 12

safely climb unbelievably steep slopes.

But there is one time, however, when slickrock truly lives up to its name, even now. Snow is rare in most of the land where slickrock is common, but when it does fall and cling unmelted to the "petrified dunes" there, these rounded rock masses get as slippery as though they were greased. Local residents take advantage of this by using the plentiful slickrock for inner-tube sliding whenever snow does fall and last long enough. The rounded, smooth shapes of these strange "dunes" are ideal for this wintertime sport.

The term "petrified dunes" is more easily explained. It is based not only upon the dune-like appearance of these rock



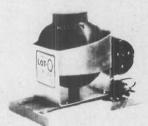
strata, but upon their method of forma-

For several long periods of time within the past quarter billion years or more, much of the Colorado Plateau region was a vast, rolling desert dominated by gigantic, restless sand dunes. Often, this sand was tinted red or amber or yellow or brown by traces of minerals. Over immeasurable eons of time, the Colorado Plateau moved slowly up and down, somewhat like the top of a vast reciprocating piston. Thus, several times, what was high and dry desert covered with drifting sand hundreds of feet deep, later became swampy lowlands, or flat plains where freshwater sediments accumulated, or even shallow sea-bottom. Then, megayears later, the land would once more rise, often to become desert still again.

Today, the Colorado Plateau is in one of its several high-and-dry phases. Most of the land can be considered high desert, even though within this desert are great ranges of young mountains that soar to alpine heights. Time, and the inexorable elements, have worn and torn the surface of this spectacular land, carving and shaping it into myriad forms of incomparable beauty.

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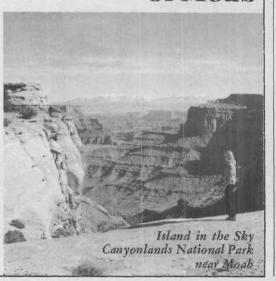
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Sand buggies find "petrified dunes" an even greater challenge than conventional dunes. The "slickrock" region shown in this photo is accessible from the Sand Flats Road, out of Moab, Utah.

Thus, when any of the wind-deposited strata on the Colorado Plateau are exposed once again to the elements of sun, wind and water, they tend to return to their original shapes—but "petrified," turned to stone. They take on the form of "petrified sand dunes" because that's what they are.

Of course, other forces also play a part. Running water erosion working on such strata causes vertical falling away of rock, as does undercutting from water runoff. Generally, but not always, such vertical cleavages take place along existing cracks or "joints." This characteristic has created countless vertical-walled canyon systems within the Four Corner's region, and has helped provide the "canyonlands" label attached to parts of this region.

Ancient cracks or joints also modify the shapes of petrified dunes, producing the tall and relatively thin sandstone

beautiful and shapely of all are the exposed surfaces of the ancient desert dunes, now petrified by slow geologic forces.

Once the original wind-formed living dunes were buried beneath other sediments hundreds or even thousands of feet thick, they were slowly cemented by water and immense pressures into solid masses of sandstone. This stone retained within it the rounded, layer-sand patterns of the wind-blown dunes. As millions of years passed, and the Colorado Plateau rose and fell, and was distorted and broken by the unimaginable forces involved, cracking and faulting and minor slippages often forced the dune-layered patterns out of register. Such misalignments are easy to observe wherever such rock is now exposed.

But despite the violence it has suffered, once such ancient sand-dune stone is exposed by erosion, the old patterns assert themselves. The rock weathers and scales away in the layered pattern layed down long, long ago, as shifting winds blew the drifting, restless sand here and there, adding thin layer after layer, or stealing sand from existing layers to use in forming still other layers. But always in the rounded, characteristic shapes that living sand dunes must assume.





"fins" often seen in canyonlands country. The Fiery Furnace section of Arches National Park is an outstanding example of this type of formation.

Within Four Corners country, there are four major rock strata that form petrified dunes, sheer walls and fins when exposed. These are the Cedar Mesa, Wingate, Navajo and Entrada. Several lesser strata also follow this erosion pattern, such as the White Rim member of the Cutler Formation, and the Moab Sandstone member of the Entrada.

The oldest of the major wind-deposited sandstones to be found in Four Corners country is the Cedar Mesa, a member of the mid-Permian Cutler Formation. Cedar Mesa Sandstone is generally white, although often faintly tinted with other colors. The Needles District of Canyonlands National Park is dominated by Cedar Mesa.

Right: Sometimes "petrified dunes" and living sand dunes can be found together. Such locations make excellent recreation sites. Here, children enjoy sliding down dunes the color of old rose. Below: In winter, snow-covered "petrified dunes" resemble gigantic snow-drifts. Then, these slickrock dunes become truly "slick," and provide canyonlands residents with endless opportunities for innertube sliding.

Wingate Sandstone is the next oldest of these, and is generally red-brown in color. The sheer walls of Utah's Dead Horse Point State Park and the Island-In-The-Sky within Canyonlands National Park are typical exposures of Wingate Sandstone. Wingate petrified dunes are generally found only at the edges of vertical cliffs of this stone. The horizontal layering of Kayenta sandstone usually protects the top of the Wingate from full exposure.

Navajo Sandstone is the next in age, and varies in color from orange-yellow





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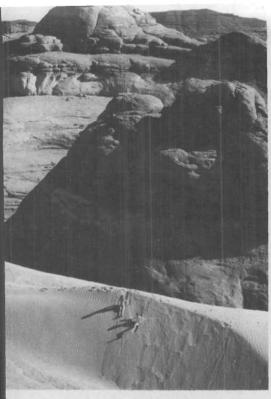
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to almost pure white. A great majority of the petrified dunes seen within southeastern Utah are either Navajo or Cedar Mesa Sandstone.

Entrada Sandstone is the youngest of the four major dune-formed deposits, and ranges in color from deep red or maroon to pure white. In a few locations, alternating layers of red and white sand lend this colorful rock a peppermint appearance. Entrada exposures are not as common as Cedar Mesa, Navajo or Wingate, but are





often the most beautiful. Outstanding examples of Entrada petrified dunes and other shapes can be found to the north and northwest of Moab, Utah, or around the perimeter of Bullfrog Basin on Lake Powell.

Almost everyone likes to hike across the rolling, lovely shapes of living sand dunes. These are common almost every where. But very few have learned to love the beauty offered by petrified dunes. These are too rare—except in Four Corners country, in the Colorado Plateau. Yet hiking across an expanse of petrified dunes can offer rewards and surprises to be found nowhere else—giant potholes, tiny pools alive with desert shrimp, appallingly deep and narrow canyons and crevices, hidden springs and herds of deer in tiny valleys, to name just a few.

So, the next time you catch sight of a patch of petrified sand dunes, don't drive on by. Stop for a while and explore this strange and different world—a world to be found nowhere else in this nation.

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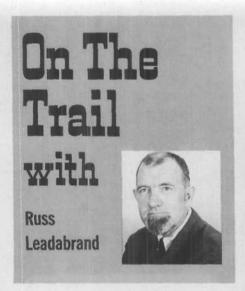
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INTRODUCTION

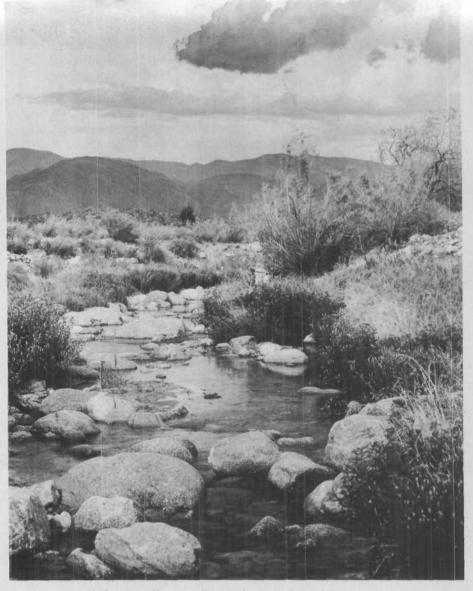
The desert has been my beat for more than 20 years. I was never a Randall Henderson, in knowledge or perserverance. True, I never chased the lost mines and buried treasure with the skill and inside knowledge as did John Mitchell. I never lived in the old ghost camps and talked with the people who lived in the desert back country as did Nell Murbarger. I never had the charisma as did Choral Pepper who was the individual who opened, as least a small window, into the Lost Pegleg condundrum.

But I've moved around in the desert and can speak the language. I'll be trying to cover the unusual yarns of the desert region, partly because these are often overlooked and have a unique significance, partly because they fascinate me, personally; and partly because all desert buffs find that this kind of informal presentation makes the desert a more personal thing.

I thus solicit letters from all desert folks and travelers who have bumped into the unusual, a good treasure yarn, an Indian or fossil or relic site, a bit of overlooked history, a controversy. These I will enjoy trying to run to earth. You may write to me at *Desert* Magazine. I will appreciate your suggestions.

I have often visited the great sprawl of our largest protected Southern desert region — the Anza-Borrego Desert State Park.

It is an area patrolled and protected. It has such an assortment of desert values that to list them is to compose a primer on desert charms.



Typical view of the Anza-Borrego Desert State Park, which attracts outdoor lovers.

Because Anza-Borrego has been prowled in much greater depth and with much more intensity than, say Death Valley, because of different regulations, much surface Indian material found in Anza-Borrego has ended up in private hands—usually the "pot hunter"—the private archeologist who is decried by the professional because he gathers for gain or his own private collection—and allows nothing or almost nothing for the scientist. Even surface material, once removed or even moved, in the desert, spoils the site for the archeologist.

Hence virgin desert Indian sites in the Anza-Borrego have, by the nature of the land and the nature of the use of the land, been very scanty and in short supply.

In June of 1972 a group of students were signed on by the State Park people to survey selective sites in the state park. After considerable search they found two interesting sites and on their own went back to do further research in the area.

While the discovery was of sites that were not old—they have been labeled "Mountain Cahuilla-recent"—it was extremely exciting because the sites were undisturbed.

William C. Seidel, state park archeologist, told me, "A full artifact inventory is still being worked on, but to date we have found four full (unbroken) ollas, and two others that have been broken. We have found one heating stone arrow straightener. We found several manos, pestles, scrapers and an assortment of pot shards."

Seidel told me: "The area we searched turned up no evidence of house sites or hearth sites although the students did find two roasting pits not far removed from the grinding area. There were a large number of slicks or mortar holes. I think the heating stones and the ollas had been cached for use at another time."

This is pretty heady stuff for the archeologist: to find an undisturbed

campsite area, however fragmentary the artifact evidence.

"Still," Seidel told me, "the site appears to be unexceptional, being comprised of little more than some grinding areas on some rocks and a few areas of darkened soil. In fact, it was only after some close scrutiny that the ollas and smaller artifacts revealed themselves. The value of the site and the thing that excites us is that it had never been vandalized. For those of us who are trying to put together an archeologist picture of the older and the more recent aboriginal people in this area, reports by any desert explorers of such sites, before they are deprived of their better and more collectible artifacts, is important.

"The discovery of the site certainly does open up the possibility of other such sites and though no systematic plans have been laid specifically for the discovery of similar virgin or pristine areas, I am involved in the continuation of a survey which the students started. We hope for good things to come of this."

In the great sweep of desert archeology the discovery of a single undisturbed Anza-Borrego site of fairly modern origin might sound like small potatoes. But the contrary is true.

Undisturbed surface finds anywhere in the West are rare and important. We have learned some important things from the pot hunter cum collector cum amateur Indian expert, but the technical papers that will eventually be published for students throughout the world to assess come from the professionals.

The body of our printed archeological work on the desert is based on two sources. The work of the professionals, and the recollections and opinions of the non-professionals. I have known a nonprofessional who could "read" a desert Indian site as well or better than any graduate archeologist. But then this person had years and years of pot hunting to guide him. At the end this individual had contributed little, possibly nothing, to the total of knowledge of the desert Indian sites and people that he had collected from for years. Younger, trained persons, who do the laborious field work in the accepted fashion, have added infinitely more.

There was a time when I would have loaded the ollas, arrow straightener and probably even a sack of the pot shards

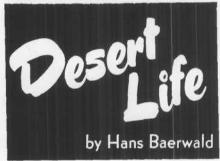
in my rig and have taken off. Not today. Relics in my den are just relics in my den. The professional, working bit by bit, inch by inch, can put the yesterday aboriginal people back on the desert and can tell us how they lived and why they vanished. This is infinitely more important.

I'm excited and pleased with the new finds and the small but dynamic program at Anza-Borrego.

I'd like, if I can get all their names, to give credit to those students who made it possible.

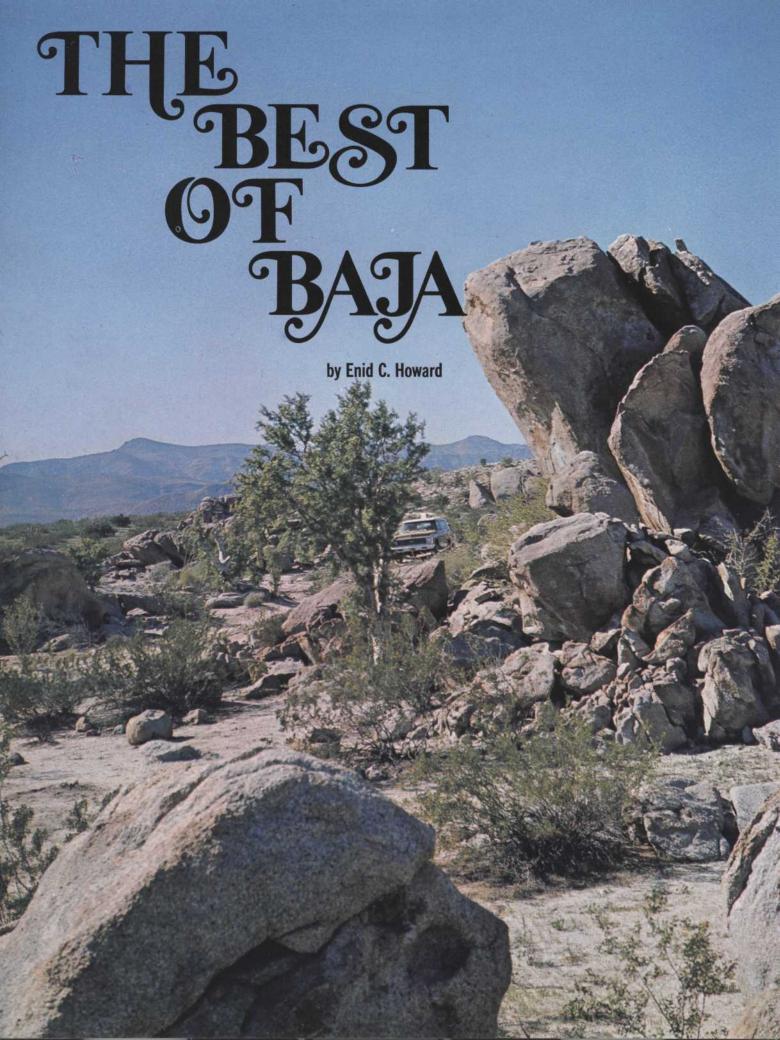
And I will give no clues at all, not one, to the location in the park of the discovery.

See you next month. . .



The fearsome looking, but harmless tarantula is prominent on desert roads after rain showers.





THIS IS the story of treasures discovered along the miles of agony road, the road of the Baja 500 mile test of machines and men each year, between San Felipe and Santa Rosalia on the east coast of the slender finger of land called the Baja Peninsula in Mexico.

I sought only to know this uninhabited land, and so I write of long, curving, golden beaches, birds and shells, bits and pieces of flotsam, craggy shores and water-marked sands, starlit and moon-bright nights with the moon shimmering and surging waves to silver tips and darkened depths, of people, and the quiet places.

Within two years this back country section of Baja will change with the completion of the new, high-speed highway from Mexicali at the United States border, to Cabo San Lucas at the extreme southern tip of the peninsula. As of February 1973, the only section not completed is the link between San Felipe and Santa Rosalia.

We were five adventurers from Arizona, with camping gear and four-wheel-drive vehicles, relieved to depart the paved highway and head out into the open stretches of thick desert vegetation south of San Felipe, always with the high peaks of the Sierra de San Pedro Matir on the west, and the waters of the Sea of Cortez to the east of us.

We reveled in every change of scene and dawdled along the road to examine everything new within our sight; cacti unfamiliar to us, a sun-basking chuckawalla, rock formations along the shore, the largest saguaro cactus we have ever seen, all are grist for our cameras. Experienced campers, we are at home in this uninhabited back country. It is the second week of February, but the sun is warm and the land fragrant with the bloom of flowers along the road, and the earthy odor of good clean desert soil.

Always we searched out the barely discernable roads that led to the sea, for a campsite, and it was thus we found Senor Sefferino Palacio. We came upon a lonely bay which appeared to be a deserted fishing camp, and spent the late afternoon roaming the curving shore for shells and bits of driftwood, then watched awkward brown pelicans and flashing seagulls dive for sardines as dusk veiled the off-shore cliffs, and the lights of fishing boats appeared on the horizon far out in the gulf waters.

Alas, with morning coffee came Senor June, 1973



On the playa (beach) at June Callito brown pelicans dive for sardines. They skim the surface and suddenly up-end when they spot a likely meal in the water below.

Palacio along the beach, and he had a rifle across his shoulder! "Buenas dias, Senor," and we offer coffee with a smile. He, also smiling, accepted, "Gracias." Senor Palacio's eyes are the eyes of a man of the sea, with many deep lines that dart out from the corners across his dark skin. They have been trained to observe the vast reaches of the gulf waters where fish break the surface, and there he drops his nets.

The Senor invited us to his camp where he conducted us around his palm-thatched utility sheds which covered his working equipment. Boats, nets, motors, ice chests all are neatly in order and ready for the next run of fish. Vast piles of clam shells are on the beach and that is part of Senor Palacio's business too, digging clams. He has been a gracious host and we depart

with reluctance. He told us that within a year a large resort will be established on his lovely Punta Areina (Sandy Point).

After we passed Bahia San Luis Gonzaga, our meandering road followed a tortuous course into the high country, and our reward for staying with it was the unbelievable masses of wildflowers that spilled out of canyons and covered small valleys or stretched for miles among cactus and desert growth. Sky-blue lupine, golden Mexican poppies, sand-hugging purple verbena, showy yellow brittlebush, and a fragrant, tiny, white daisy-like flower we could not identify, were spread at our feet in floral carpets.

We found a small sandy wash and followed it to a veritable rock garden where we camped one memorable night surrounded by giant boulders and flowers,



Thick desert vegetation is predominate along the back-country roads of the east coast of Baja. Idria Columnaris or. "Boojum," grows to about 50 feet in height, but does not always hold a straight line in growth pattern. It is just as likely to produce curled tips. The twig-like growth along the central trunk are covered with spines.

the horizon against a splashed red and gold sunset dominated by towering saguaros, agaves, ocotillos, and that weird tree called "Boojum" by a scientist when he first saw it because he was at a loss to describe it. Actually, its official name is "Idria Columnaris," and is known as *Circio* by the Mexicans, meaning, "taper." It belongs to the same species as the ocotillo, and is *not* a cactus.

We visited many of the old missions when they were on our route, and Mission

Through this ornate doorway of the Mission San Borja is seen the shell design canopy of the inner door, and the courtyard beyond. The old Spanish missions usually were designed around a central court which provided a private retreat for the padres.

by the evening tide pattern the wet sand, bare feet sink and are lifted with a siphonlike sound as we walked the shore where king-size breakers rolled in with the surge of the ocean behind them. One other human was present on "our" beach. He was Marselina, keeper of the small store where cold drinks, tacos and such will be dispensed in the near future. For at Millers Landing the new road has reached the wide graded stage, and soon will come the "pavemiento," according to Marselina's wide sweep of the hand, with sound effects. Then, one can s-swis-sh to Loreto, pronto! Desert Magazine

San Borja, just south of Bahia de los Angeles, was our favorite. What hopes and dreams of the Padres, who worked so long to establish an ordered community, are enclosed in the ruins of this once beautiful garden spot? Here, date palms, grapes, fig trees, and vegetable gardens were established, and a network of irrigation ditches from a spring carried water to sustain life in the raw country of New Spain.

The Mission is in ruins, but a small bit of imagination brings alive the building that must have glowed with the soft tan and pink native stone of its creation. Loving care fashioned the arched roofs and doorways of shell design. No matter the passing of time, the old building is still rich with the labor of man in his desire to create beauty.

Our wild, back country one-track road suddenly turned due west and we were heading for the Pacific side of Baja to a point of land with the impossible American name of "Millers Landing." By trial and error, (no signs) we arrived at what has to be the longest, loneliest stretch of beach in the world. Before the vehicles rolled to a stop we heard the ocean, and a mad scramble began to be the first to wet a foot in the Pacific. Our camp at Millers Landing was the favorite of all of us, and that means something when every night's camp was very special;

Millers Landing is thunder on the land—shore birds dashing about for food—pink frosting on the rolling lines of giant breakers at sun-rise, the best of twenty-four hours to walk the sea-soaked shore. There, gifts from the sea dot the sand; perky pink and white turbin shells, or "Astraea Undosa," abalone shells, clam and myriads of other sea jewels are to be found. Curls of tangled seaweed left by the evening tide pattern the wet sand, bare feet sink and are lifted with a siphon-like sound as we walked the shore where king-size breakers rolled in with the surge of the ocean behind them

Marselina joined us for our dinner of Sloppy Joes, and was warned about the Salsa Brava when he sprinkled it with a lavish hand. Most of his dinner comments were about, "mucho caliente salsa." He graciously offered to provide us with free wood for a fire, and we hope we declined no less graciously, as every scrap of his wood had to be brought from a distance.

Our back country travel ended at Millers Landing, but we continued to camp along the shore after we reached Santa Rosalia on the east coast. Mulege, just south of there, was the first village of any size since leaving San Felipe eleven days before, and we stopped to replenish food supplies and water.

This coastal region of the peninsula south of Mulege is a rugged and rocky shore with many bays, coves, and offshore islands. The deep blue of the water viewed from the cliffs above is a majestic setting for the colorful islands that seem to float in an amethyst pool. We stopped to watch seals and sea-lions playing and rolling in the protected waters of the island channels.

Not too much fancy civilization has reached this portion of Baja as yet, and our search for off-pavement camp sites brought us to Senor Cruz Vallejo and his family, all 62 of them, at Rancho June Callito, near Loreto.

Again we followed a dim road through cactus, brush and sand, and almost ran over a man walking ahead. This was Senor Vellejo, and, "of course you may camp on the Playa." The merry smile and bright eyes under shaggy gray brows bid us welcome and he personally directed us around the sprawling palm-thatched ranch buildings and down a road to the golden sand of his Playa.

After much conversation with our limited Spanish and gestures, we returned the Senor to his ranch where we met his family. His Father, still straight and strong at 89, and with an astonishing snow white beard, greeted us warmly and shook hands.

His four handsome sons had just returned with the fishing boats and were unloading the catch when Senor Vallejo exchanged lightning Spanish with the tall one, who jumped from his boat with three fish in hand and presented them to us with a flourish.

Later, we returned with the Senor to our camp where he fileted the Sierra June, 1973

Bonito for us, instructed us to season with butter, salt and pepper, wrap in aluminum, and place on fire grill. Absolutely the finest dinner we had the entire trip.

It is so I wish to remember Baja, with the almost full moon silvering the Playa at June Callito, with the warmth of fellowship towards strangers in a strange land, with the surge of life and involvement one feels with other people who struggle to exist with dignity in their world as we do in ours.

On my desk is a pearly Astraea Undosa from Millers Landing. It glows softly with a luminous light born of its creation in the ocean which cast it to shore. It reminds me often of the lovely, unspoiled portion of the Baja I found, of the back roads, of the contrast in harsh, cactus-ridden dry valleys and the moisture-wet shore lands, of the carpets of flowers in the high country, and with the indigo star-dusted night sky, the faces of good compadres in fire-light.

I am reminded, too, of the people of Mexico who, warm-hearted and real, are a part of this experience. This is the Baja I will remember.

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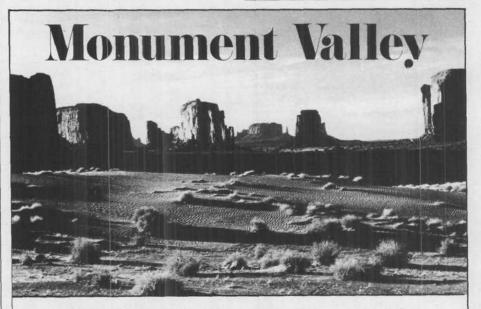
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Rambling on Rocks

by Glenn and Martha Vargas

OBSIDIAN AND ITS RELATIVES: Perlite and Pitchstone

E DISCUSSED obsidian as a gem material in one of our previous columns. It has an important place in the realm of the amateur lapidary. Most gem cutters miss some of the important aspects of obsidian, and most of all, its close relatives are ignored or little understood.

Obsidian is in reality a form of glass. It is the result of a lava, high in quartz content, being rapidly cooled after it leaves the vent of a volcano. The more rapid the cooling, the more glass-like is the final product. If the cooling is slow, small crystals of various minerals may begin to form before the mass solidifies. Obsidian Butte, on the shore of the Salton Sea in Imperial Valley, California, is an example of this type of obsidian. It does not break with the very smooth conchoidal

(shell-like) fracture that is usually associated with this rock.

If the molten mass flowed a short distance before solidifying, a banded appearance resulted. This is usually because certain minerals tended to gather in groups, with the flowing motion spreading them out into bands. This may be called banded obsidian, or flow obsidian. A good location for this type is on the California-Nevada border, east of Owen's Valley. Here it is very nearly transparent and colorless, with dark bands.

Colors of obsidian are often misunderstood. The most common is a black, either completely opaque or bordering on translucent. The material known as "sheen obsidian" or "rainbow obsidian" and the like is the result of very small crystals growing during cooling, and being concentrated into bands or layers. This takes place nearly always in a black material.

A reddish-brown type, usually in bands also, is known as "mahogany obsidian." The above colors, including the nearly transparent material, are the only ones that you can expect to find. We have often heard of a green obsidian, but have never seen it. We have been shown some green material on a number of occasions, and were told it was obsidian. Each time, we decided it was glass. One good gemologist told us that if an unknown material is black or brown, it is obsidian. If it is any other color, he calls it glass. We then asked him how he could distinguish between a brown glass and mahogany obsidian. He said that there really was no way to be certain from a gemological standpoint, except that he had never seen a brown glass that even closely resembled obsidian.

This points out that obsidian is really glass. Granted, it is not as pure as manmade glass, but the origins and "methods of manufacture" of each are very similar.





True glass is reasonably pure quartz, and is fairly stable, and not too prone to breakdown by weathering.

Obsidian is usually made up of many types of minerals, and even though the whole mass looks very homogenous, each mineral reacts differently to the forces of weathering. Thus, some types of obsidian break down on long exposure.

When any rock weathers, certain portions dissolve, or change, thus creating weak spots in the mass. These weak spots



Apache Tears.

develop into cracks, further allowing more of the agents of weathering to enter. More cracks form, until the mass begins to fall apart.

When this happens to obsidian, it changes from the usual black to a gray. Usually, all of the mass does not weather equally, and there will be isolated lumps of obsidian within the gray mass. Some of these lumps of obsidian may later weather into gray lumps. This material is known as perlite. The name comes from the small gray lumps that break out as small balls, and somewhat resemble pearls. The black lumps are called Apache tears, and we will discuss them later.

If the process of weathering continues, the mass will become nearly all gray, without any "pearly" lumps in evidence. This

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is known as pitchstone. Pitchstone is much more common than perlite, but most people know it as perlite. We suspect that the reason for the incorrect name is that there is a small hope that the lower grade pitchstone might be elevated to the higher quality perlite by the use of words. It is an interesting theory.

Perlite, when ground into particles about the size of grains of sand, and heated to nearly melting, will become frothy and expand greatly. It is almost impossible to believe that spongy balls, about the size of a pea, have been expanded from particles the size of sand grains. The extreme light weight of each individual piece is adequate proof.

Expanded perlite is an excellent insulating material, is very fire-proof, and has found a good market in building construction. As we stated before, perlite is not common, but pitchstone is. Some pitchstones will sometimes expand into good insulating material, but most deposits are of poor quality. It is not surprising then, that any prospector looking for salable materials, will have a strong incentive to call a deposit of pitchstone by the name perlite in the hope of making a sale.

Now for the Apache tears. Some of these small balls of obsidian are so resistant to weathering that they will persist through the pitchstone stage, and then be released when the mass crumbled into sand. These have been concentrated in good-sized deposits.

The name comes from American Indian lore. It is said that the balls of obsidian are the solidified tears of Indian women that were shed in mourning for their men lost in battle. How true the story is, we have never been able to determine, but we suspect that it is now more a part of the "white man's" rockhound lore than that of the Indian



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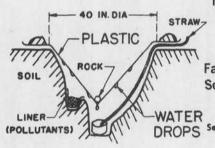
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DESERT GEM TRAILS by Mary Frances Strong. DESERT Magazine's Field Trip Editor has revised and brought up to date her popular field guide for rockhounds. She has deleted areas which are now closed to the public and added new areas not covered before. The maps have also been updated. This is the "bible" for both amateur and veteran rockhounds and back country explorers. Heavy paperback, 80 pages and still the same price, \$2.00.

COMMON EDIBLE & USEFUL PLANTS OF THE WEST by Muriel Sweet. A description with artist drawings of edible (and those not to touch) plants along with how Indians and pioneers used them. Paperback, 64 pages, \$1.50.

1200 BOTTLES PRICED by John C. Tibbitts. Updated edition of one of the best of the bottle books. \$4.95.

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TRAVEL GUIDES TO BAJA CALIFORNIA by Ken and Caroline Bates. Published the Editors of Sunset Books, this is a useful book on Baja and should be a companion piece to Gerhard and Gulick's Lower California Handbook and Cliff Cross's Baja by Road, Airplane and Boat. The Bates' book takes the reader to the people with text, photographs and maps. Anyone going to Baja should have all three books. Large 8x10 format, heavy paperback, 80 pages, \$1.95.

SPEAKING OF INDIANS by Bernice Johnston. An authority on the Indians of the Southwest, the author has presented a concise well-written book on the customs, history, crafts, ceremonies and what the American Indian has contributed to the white man's civilization. A MUST for both students and travelers touring the Indian Country. Heavy paperback, 10x7 format, illustrated, 112 pages, \$2.50.

REDIGGING THE WEST for old time bottles by Lynn Blumenstein. One of the better bottle books, with 700 photographs. Paperback, \$4.25.

MINES OF DEATH VALLEY by L. Burr Belden. About fabulous bonanzas, prospectors and lost mines. Paperback. \$1.95.

LOST MINES OF THE GREAT SOUTHWEST by John D. Mitchell. The first of Mitchell's lost mine books is now available after having been out of print for years. Reproduced from the original copy and containing 54 articles based on accounts from people Mitchell interviewed. He spent his entire adult life investigating reports and legends of lost mines and treasures of the Southwest. Hardcover, illustrated, 175 pages, \$7.50.

GREENWATER by Harold Weight. Called the "monumental swindle of the century" this is the story of the 1906 stampede to the Black Mountains and how \$30,000,000 disappeared. Paperback, historic photos, 34 pages. \$1.00.

RHYOLITE by Harold Weight. Tales of Shorty Harris, Ernest Cross, Bob Montgomery, M. M. Beaty and the men and women who estabished the famous mining town near Death Valley. Paperback, historic photos, 40 pages. \$1.00.

ON DESERT TRAILS by Randall Henderson, founder and publisher of Desert Magazine for 23 years. One of the first good writers to reveal the beauty of the mysterious desert areas. Henderson's experiences, combined with his comments on the desert of yesterday and today, make this a MUST for those who really want to understand the desert. 375 pages, illustrated. Hardcover. \$6.95.



GHOSTS OF THE GLORY TRAIL by Nell Murbarger. A pieneer of the ghost town explorers and writers, Miss Murbarger's followers will be glad to know this book is once again in print. First published in 1956, it is now in its seventh edition. The fast-moving chronicle is a result of personal interviews of old-timers who are no longer here to tell their tales. Hardcover, illustrated, 291 pages, \$7.00.

THE NORTH AMERICAN DESERTS by Edmund C. Jaeger. A long-time authority on all phases of desert areas and life, Dr. Jaeger's book on the North Ameican Deserts should be carried wherever you travel. It not only describes each of the individual desert areas, but has illustrated sections on desert insects, reptiles, birds, mammals and plants. 315 pages, illustrated photographs, line drawings and maps. Hardcover. \$5.95.

LOST MINES & BURIED TREASURES ALONG THE OLD FRONTIER by John D. Mitchell. The second of Mitchell's books on lost mines which was out-of-print for many years is available again. Many of these appeared in DESERT Mgazine years ago and these issues are no longer available. New readers will want to read these. Contains the original map first published with the book and one pinpointing the areas of lost mines. Mitchell's personal research and investigation has gone into the book. Hardcover, 240 pages, \$7.50.

Book Order Form

Letters to the Editor

Canyon Buff . . .

"Ethyl and Me," by Robert Cronin, in the March issue of *Desert* Magazine about the Grand Canyon was great. Being a hiker, I have hiked down into the Canyon ten times. The best time I ever made on the Bright Angel Trail to Phantom Ranch was three hours and ten minutes. Down Kaibab Trail, which is somewhat shorter than the Bright Angel, took me two hours and ten minutes. Take the Kaibab Trail down and the Bright Angel up. One time up Kaibab taught me never again to try it. It is just too arduous a climb.

ELMO MENETRE, T or C, New Mexico

Desert Wildflowers . . .

Knowing the unusual rainy season this year would bring about scads of wildflowers, it was difficult for my husband and I to decide just where to go to see the best display. We finally settled on Death Valley and were rewarded to the fullest, as we have never seen such a profusion of beautiful wildflowers. Just thought other *Desert* readers might like to remember that area for the future.

V. ARMSTRONG, Los Angeles, Calif.

Calendar of Western Events

JUNE 8-10, DIGGERS ROCKHOUND POW-WOW, IONE, CALIF. Field Trips, Dealers Exhibits, etc. Contact: Bud Fitzgerald, 7436 Circle Parkway, Sacramento, CA 95823.

JUNE 14 - 18, 4TH ALASKAN CAMPER INTERNATIONAL ENCAMPMENT, Nevada County Fairgrounds, Grass Valley, Calif. All Alaskan owners are invited to attend. For registration information phone: (415) 447-0186, or write Alaskan Camper International '73, P. O. Box 963, Livermore, Calif. 94550.

JUNE 29, 31-JULY 1, ANNUAL NATION-AL CACTI & SUCCULENTS SHOW sponsored by the Cactus & Succulent Society of America, Inc. 9 A. M. to 5 P. M. daily at the Los Angeles State & County Arboretum, 301 N. Baldwin Ave., Arcadia, Calif. Admission free, door prizes. Contact: Mrs. Kathryn Sabo, 20287 Rustin Rd., Woodland Hills, CA 91364. Phone: (213) 347-5590.

Partner Wanted . . .

I would like to contact someone, preferably with a four-wheel-drive, to look over some spots for treasure hunting purposes. Perhaps you receive other letters from your readers with the same idea—that of finding a partner. I have a few particular places in mind which I believe offer better than average possibilities. I may be contacted at this address.

ROLAND HEYER. 418½ S. 4th St. Las Vegas, Nevada 89101 JULY 21 & 22, MT. JURA GEM & MINERAL SOCIETY'S 9th Annual Show in conjunction with the Greenville Gold-digger Days. Town Hall, Greenville, Calif., Plumas County. Demonstrations, free camping, field trip Sunday. Admission 25¢. Contact Chairman Milt Meyers, Rt. 1, Box 7, Greenville, Calif. 95947.

AUGUST 4 & 5, "GOLDEN GATEWAY TO GEMS," sponsored by the San Francisco Gem & Mineral Society, in the Hall of Flowers, Golden Gate Park. All phases of the lapidary art will be featured, and exhibit collections of material from the desert regions of the Southwest. Also specimens from old and rare collections.

SEPTEMBER 8 & 9, ALL ROCKHOUNDS POW WOW CLUB OF AMERICA, INC., Cle Elum, Washington. Mineral Springs Resort. Field Trips, Dealer space. Louis Nees, 118 -41st Ave., N. E., Puyallup, Wash. 98371.

OCTOBER 5 - 7 WASATCH GEMS SOCIETY SECOND ANNUAL CARNIVAL OF GEMS, Utah State Fair Grounds, Commercial Exhibit Building No. 3, North Temple and Ninth West, Salt Lake City, Utah. Show Chairman, Joseph Cipponeri, 1849 David Blvd., Bountiful, Utah 84010.

SEPTEMBER 29 & 30, "JUBILEE OF JEWELS," 14th annual show sponsored by the Carmel Gem & Mineral Society, Exhibition Building, County Fairgrounds, Monterey, Calif. Dealers, special exhibits, demonstrations, refreshments. Admission, 50¢, children under 12 free when accompanied by adult. Dealer space filled. Show chairman: Bob Mullnix, P. O. Box 5847, Carmel, Calif. 93921.

OCTOBER 7-13, 6TH ANNUAL NATIONAL SILVER STREAK RALLY, Golden Village, Hemet, Calif. All Silver Streak owners, whether club members or not, invited to rally. For further information, contact V. L. Cooper, rally coordinator, Silver Streak Trailer Company, 3219 N. Chico, So. El Monte, Calif. 91733.

OCTOBER 6-7, THE HI-DESERT GEM & MINERAL ASSOCIATION'S 2nd annual show hosted by Yucca Valley Gem & Mineral Society; Joshua Tree Gem & Mineral Society; Hi-Desert Rockhounds of Morongo Valley and Oasis Rock Club of 29 Palms, will be held at the Yucca Valley High School, 7600 Sage Ave., Yucca Valley, Calif.

Information on Western Events must be received at DESERT six weeks prior to their scheduled date.

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